TL 435
.B62
Copy 1

TL435
.B62

1896

Tribune Cycles

CATALOGUE OF

The Black Mfg. Co., Erie, Pa.

MAY 27 1896

28468 B2-1

TL 187
.B62

TL 435
.B62

Copyright, 1896, by
The Black Mfg. Co

7-3442

Greeting:

In presenting to your inspection the Tribune line for '96, we feel that a few words regarding bicycles in general may not be amiss.

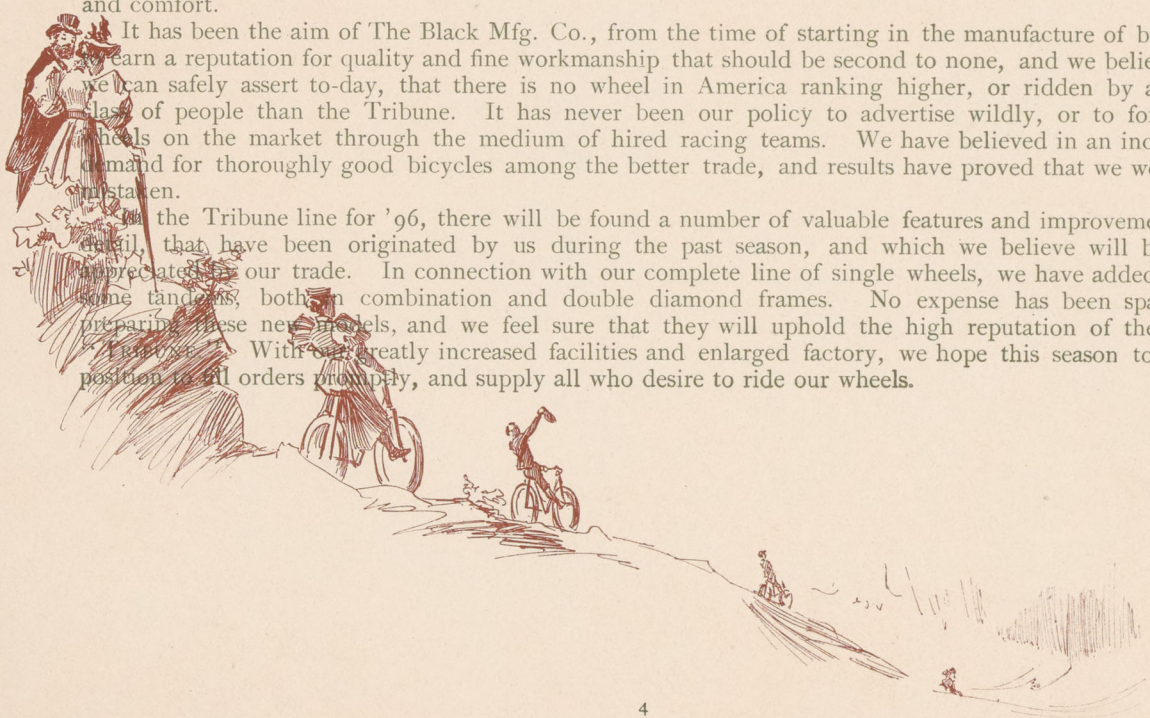
During the past season, the interest shown in this health-giving sport has far exceeded any previous year, and for business purposes the bicycle of to-day may be ranked almost as a necessity. The great demand for wheels which has been thus caused, has led to the manufacture of many inferior machines, which, in some cases, have been offered as high grade. There is probably no article at present upon the American market of which it is more difficult to judge the value than a bicycle. In outside style and finish, a wheel that retails at fifty dollars will oftentimes present as good an appearance to the inexperienced buyer, as the finest machine listing at one hundred dollars, and it is only when such a bicycle is put in actual use that the real difference is apparent.

In every branch of manufacturing industry, there will be found some makers who have out-stripped all others in the art of producing fine work, and who, while they may not be the largest manufacturers in their line, have earned a world-wide reputation for the quality of their goods. It is the products of such firms that are sought after by the better trade, those who desire articles that are reliable, and from which they can obtain the best results. The market is filled with cheap imitations of all the better goods, many at half the price of the genuine; but he must be a very credulous person indeed, who believes he can obtain the same value for fifty dollars that a reliable maker offers him for one hundred.

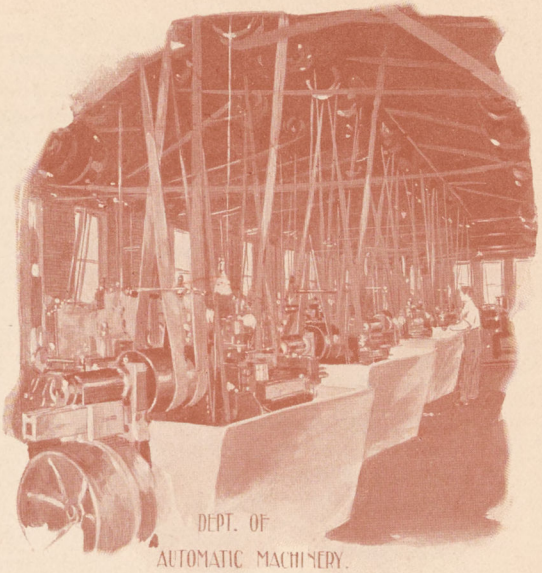
There is a pleasure in the possession of any really good article, whether it be for enjoyment or business; while nothing is more unsatisfactory than to find that you have paid your money for a thing that you are not pleased with, and which is a source of annoyance to you whenever you attempt to use it. The amount of money which you save in this way will in no measure compensate for your loss of pleasure and comfort.

It has been the aim of The Black Mfg. Co., from the time of starting in the manufacture of bicycles, to earn a reputation for quality and fine workmanship that should be second to none, and we believe that we can safely assert to-day, that there is no wheel in America ranking higher, or ridden by a better class of people than the Tribune. It has never been our policy to advertise wildly, or to force our wheels on the market through the medium of hired racing teams. We have believed in an increasing demand for thoroughly good bicycles among the better trade, and results have proved that we were not mistaken.

In the Tribune line for '96, there will be found a number of valuable features and improvements, in detail, that have been originated by us during the past season, and which we believe will be fully appreciated by our trade. In connection with our complete line of single wheels, we have added handsome tandems, both in combination and double diamond frames. No expense has been spared in preparing these new models, and we feel sure that they will uphold the high reputation of the name "Tribune." With our greatly increased facilities and enlarged factory, we hope this season to be in position to fill orders promptly, and supply all who desire to ride our wheels.



General Description

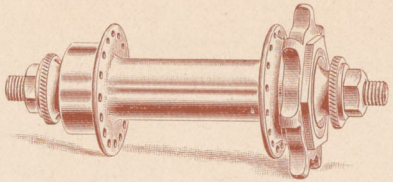


DEPT. OF AUTOMATIC MACHINERY.

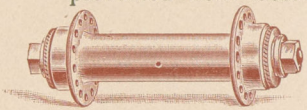
We devote considerable space to a description of the mechanical construction of the "TRIBUNE," for it is in these details that our wheels excel. A bicycle may be built to look all right, as far as outside appearance goes, for a comparatively small cost. It is difficult to judge from appearances whether a frame has one coat of enamel or four, or whether the plated parts have been run in nickel fifteen minutes or three hours. Also in the mechanical work it is not easy to tell, when looking at a finished bicycle, whether the cones and bearing parts are drilled, tapped and formed in one operation and used in the shape they come from the first screw machine, or whether they are first formed over size and then finished to gauge on hardened arbors, at several times the cost. The latter method means fine, accurate and easy running bearings that can be perfectly adjusted, while the parts finished in one operation are always more or less eccentric, making it impossible to adjust the bearing so that it will not be tight in one position and loose in another. There is no piece of machinery, except, perhaps, a watch, where outside appearances can cover as vast a difference in quality as in a bicycle.

The Tribunes are high-priced wheels, and the dealer may recommend to a rider, machines on which he can make a larger profit, but the purchaser of a Tribune may feel assured that he has got the finest bicycle, in both design, quality and finish, that good machinery and experience can produce.

The Hubs . . . Are each turned in one piece from bar steel; the rear hub has a hardened, detachable sprocket with Cycloidal teeth, which is secured in place by a right-hand thread, and prevented from loosening by a left-hand check nut, making a positive fastening, but admitting of easy removal. The bearing cups or bushings are of tool steel, hardened and ground, and forced by pressure into the ends of the hubs, which are cupped to receive them. The bearing cones to both wheels and crank-shaft are of tool steel, cut from bar stock, and are hardened, ground, and drawn to a straw color. The balls are of best make and gauged accurately to size. The bearings throughout are perfect in construction, dust-proof and frictionless in running. There are sixteen $\frac{3}{16}$ inch balls to the front wheel; eighteen $\frac{1}{4}$ inch balls to the rear wheel, and twenty-eight $\frac{1}{4}$ inch balls to the crank-shaft bearing.



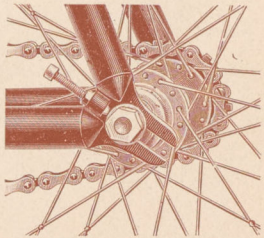
Rear Hub.



Front Hub.

The Axles . . . Are $\frac{9}{32}$ inch to front, $\frac{3}{8}$ inch to rear wheel and $\frac{5}{8}$ inch to crank shaft; they are of special steel of exceeding toughness, made particularly for this purpose. The spokes are tangent, and are made of piano wire, .090 diameter, cold swaged to .070 in the center, leaving the ends the original size of the wire, thus making a spoke of great strength and durability, but very light in appearance. There are 28 spokes in the front wheel, and 32 in the rear. The nipples are of hardened brass, long and close fitting to the spokes.

The Frame . . . Is of the best weldless steel tubing, and built on the most modern lines; the lengths of head from steering centers are $9\frac{3}{4}$ in. on Models 27, 24 and 21; 12 in. on Model 26, and 8 in. on Model 25. The frames are built in three heights, 24, $26\frac{1}{2}$ and $21\frac{1}{2}$ inches, measuring from crank-shaft center to top of seat-post forging; every joint is a steel forging, bored for lightness and machined both inside and outside. There are no lap-tube joints or sheet-metal substitutes for forgings, either in the frame or in any portion of the machine. The forks are of large diameter weldless tubing, reinforced and gracefully curved, and are drilled at the ends to receive a projection on the cones, thus relieving the axle from any unnecessary strain. The crown forging is neat in appearance and carefully machined, doing away with all needless weight. The wheel base is $43\frac{1}{2}$ inches in Models 27, 24 and 21; 45 inches in Model 26, and $41\frac{1}{2}$ inches in model 25.



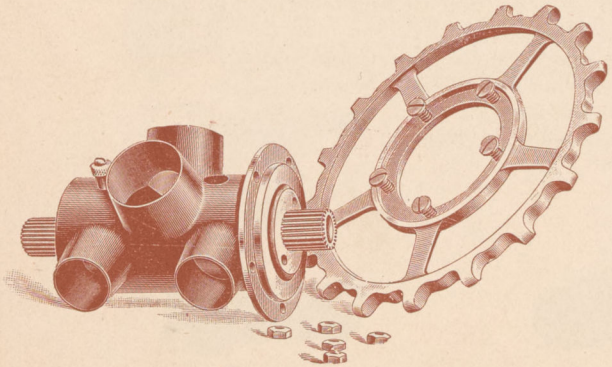
Rear Forging and Chain Adjustment

The Seat Post. For '96 is made from bar steel, $\frac{3}{4}$ inch in diameter, drilled out for lightness, and milled on rear side to prevent turning. It is adjustable for height and held firmly in position by set screw. We also make a T-post which can be furnished if desired, when a saddle with $\frac{9}{16}$ or $\frac{5}{8}$ inch clamp is to be used. We would call particular attention to the forging which supports the seat post, as shown in illustration. It is light, compact, exceedingly strong and not easily imitated in sheet metal—the tubes of the rear frame being brazed firmly into it, instead of attached by the cheap method of flattening the tube ends and securing by a bolt. The forging which supports the rear wheel is also worthy of attention, being very neat and particularly suited to its place. The accompanying cut illustrates it in detail, together with the method of adjusting the chain.

T Seat Post.

The Crank . . . Hanger Forging Is this year made in barrel form, in order to harmonize with the size of tubing now used, and the tread is reduced to $4\frac{7}{8}$ inches. The driving sprocket is nickeled, and of a new detachable form, which is easily removed for the purpose of changing gear, but will not work loose. The accompanying illustration will clearly explain its construction.

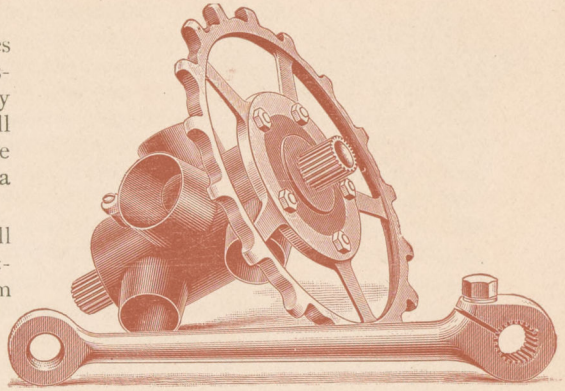
The Gear . . . Unless otherwise ordered, will be 68 on Models No. 27 and No. 26, and 63 on Models No. 25 and No. 24. We are, however, prepared to substitute gears as described on page 30 without extra charge if specified when placing order. Our sprocket wheels in all sizes are made with the new Cycloidal teeth, described on pages 24, 25 and 26. The chain is the popular "Humber" pattern with hardened links and rivets, width $\frac{1}{4}$ inch.



Detachable Driving Sprocket.

The Cranks . . Are round and made of special toughened steel, and while light, they are exceedingly strong. The method of attaching them to the shaft is new and a great improvement over the old key and nut; also is more simple in construction and easier removed than in some of the new methods, where the shaft and crank are made in one, separable at the center by a

complicated sleeve device. The accompanying cut illustrates our crank fastening so clearly that little explanation is necessary. The crank is removed and replaced at pleasure by merely loosening or tightening the bolt. The cranks as well as all parts of our machines are made on the interchangeable plan, and in case of a broken crank it is but the work of a moment to replace it with a new one.

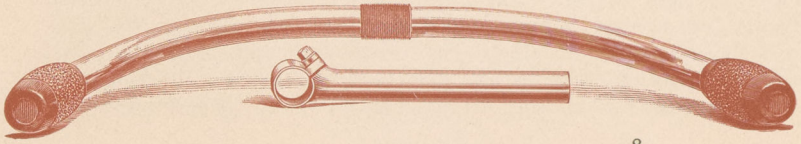


Crank Shaft and Crank.

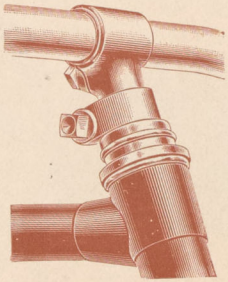
Rims . . . . . . It is hardly necessary to state that we will use wood rims entirely, as there is practically no call for anything else. Our rims are made from selected hickory elm; they are oiled, well varnished and rubbed to a high polish. Colored rims will be furnished to order only, at an additional charge of $1.00 net.

Saddles . . . . . Unless otherwise ordered, our wheels will be equipped with Sager X2 or L2 saddles, fitted to direct, hollow posts. Are of one piece weldless steel tubing, $\frac{7}{8}$ inch diameter, and are adjustable both for height and position. The construction is both simple and positive, and they may be raised and lowered as desired by the rider, by loosening the clamp bolt, which binds the threaded clamp tightly into the V-thread of the bar, as shown in cuts. The handle bars are made in three shapes, as shown on page 31, and as any of these may be reversed to make upward curves, there are practically six styles from which to choose.

The . . . . . Handle Bars . .

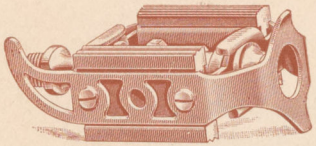


Handle Bar with Clamp

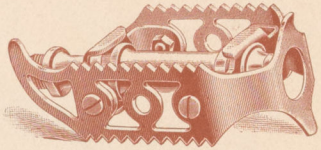


Handle Bar Fastening.

The Pedals . . Are of an entirely new pattern of our own manufacture. The center or hub is turned from bar steel cupped at each end to receive the bearings, which are always perfectly in line; the grip plates are in one piece and are firmly bolted to the body of the pedal, but can be readily replaced in case of accident. There are twenty-eight steel balls $\frac{1}{8}$ inch diameter to each pedal. The shafts are of a special steel and finely tempered. They are secured to the crank by right-and-left threads, and will not work loose. We furnish either rat-trap or rubber as may be desired, but not combination. Both styles are shown in illustrations.



THE TRIBUNE RUBBER PEDAL.



THE TRIBUNE RAT-TRAP PEDAL.

Tires . . . . . . We have during the past seasons equipped our wheels with tires of every popular make, and have had excellent opportunity to judge their respective merits. While our position on the tire question is entirely a neutral one, it is greatly to our interest to recommend a tire that will give the least trouble and best satisfaction to the riders of our wheels. Experience has shown us that we are safe in recommending the pneumatic tires made by Morgan & Wright as reliable and good, and for all-around use we believe there are none better. As we have adopted their new quick-repair tire as our standard for '96, we have devoted pages 32 and 33 to an illustrated description of it and its method of repair. We are prepared to substitute either Hartford or Dunlop if specified in ordering.

Model 27 is the standard wheel of the Tribune line, and in point of workmanship stands unequaled. Every detail of its construction marks the extreme limit of accuracy known in bicycle manufacture, and the quality and finish of the bearing parts are an education to those who are unused to this class of work. This machine is a thoroughly practical road wheel, and is adapted either for the business man or the road scorcher. It is sufficiently light for any reasonable use, and at the same time strength and durability are not in any way sacrificed to this end.

Regular Outfit. 24 inch diamond frame of latest pattern, made of the best quality of weldless steel tubing, joined with steel forgings throughout; no castings used. Wheels 28 inches front and rear. Cold swaged piano wire tangent spokes, 28 to front and 32 to rear wheel. Wheel base 43½ inches. Superior quality wood rims, M. & W. 3½ pound pneumatic road tires. Detachable seven-tooth sprocket. Tribune extra fine tool steel ball bearings, drawn to color. Forged steel 17-tooth detachable sprocket and Tribune-Humber pattern chain, ¼ inch with hardened links and rivets. One piece weldless steel tube double adjustable handle bars, Corkaline handles with rubber tips. Adjustable hollow steel seat post. Detachable round toughened cranks, new pattern. 6½ inches throw. Tread, 4⅞ inches. Round hollow knurled step. Tribune rat-trap dust-proof ball pedals, new pattern, 3⅝ inches wide, with tool steel bearings. Sager X2 saddle and tool bag. Monkey wrench. Oil can. Air pump and spanners. Gear 68. Finish, black enamel with nickel trimmings and spokes, Weight, 23 lbs. Weight, fitted with three-pound tires, 22½ lbs.

Options. Gear 60, 63, 72, 76 or 80. Hartford or Dunlop tires. Rubber pedals. 6 inch or 7 inch cranks.

TRIBUNE, MODEL 27

Price, $100.00

OFFICE.

MODEL 26

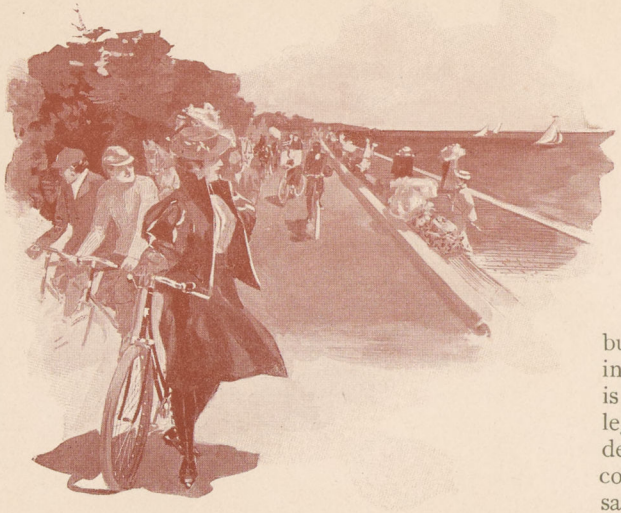
Model 26 is the same in every respect as Model 27, excepting the depth of frame, which is 26½ inches, and is intended only for riders having an inside leg measure of 34 inches or over. It is an excellent machine in every respect, and is fully guaranteed for general use. Unless otherwise ordered, it will be equipped with rat-trap pedals. Rubber may, however, be substituted if specified when ordering.

Regular Outfit. 26½ inch diamond frame of latest pattern, made of the best quality of weldless steel tubing, joined with steel forgings throughout; no castings used. Wheels, 28 inches front and rear. Cold swaged piano wire tangent spokes, 28 to front and 32 to rear wheel. Wheel base 45 inches. Superior quality wood rims, M. & W. 3½ pound pneumatic road tires. Detachable seven-tooth sprocket. Tribune extra fine tool steel ball bearings, drawn to color. Forged steel 17 tooth detachable sprocket and Tribune-Humber pattern chain, ¼ inch with hardened links and rivets. One piece weldless steel tube double adjustable handle bars. Corkaline handles with rubber tips. Adjustable hollow steel seat post. Detachable round toughened cranks, new pattern. 6½ inches' throw. Tread, 4⅞ inches. Round hollow knurled step. Tribune rat-trap dust-proof ball pedals, new pattern, 3⅝ inches wide, with tool steel bearings. Sager X2 saddle and tool bag. Monkey wrench. Oil can. Air pump and spanners. Gear 68. Finish, black enamel with nickel trimmings and spokes. Weight, 23½ lbs. Weight, fitted with three-pound tires, 23 lbs.

Options. Gear 60, 63, 72, 76 or 80. Hartford or Dunlop tires. Rubber pedals. 6 inch or 7 inch cranks.

TRIBUNE, MODEL 26

Price, $100.00



MODEL 25

Model 25 is also similar in construction to Model 27, but is built in reduced size, the wheels being 26 inches in diameter. This is an excellent little machine and is designed for men of short stature, having an inside leg measure of 30 inches or less. It is also a particularly desirable wheel for ladies who wish to ride in cycling costume. The size of tubing and minor details are the same as our other models.

Regular Outfit. 21½ inch diamond frame of latest pattern, made of the best quality of weldless steel tubing, joined with steel forgings throughout; no castings used. Wheels, 26 inches front and rear. Cold swaged piano wire tangent spokes, 28 to front and 32 to rear wheel. Wheel base, 41½ inches. Superior quality wood rims, M. & W. 3½ pound pneumatic road tires. Detachable seven-tooth sprocket. Tribune extra fine tool steel ball bearings, drawn to color. Forged steel 17-tooth sprocket and Tribune-Humber pattern chain, ¼ inch with hardened links and rivets. One piece weldless steel tube double adjustable handle bars. Corkaline handles with rubber tips. Adjustable hollow steel seat post. Detachable round toughened cranks, new pattern. 6½ inches throw. Tread, 4⅞ inches. Round hollow knurled step. Tribune rat-trap dust-proof ball pedals, new pattern, 3⅝ inches wide, with tool steel bearings. Sager X2 saddle and tool-bag. Monkey wrench. Oil can. Air pump and spanners. Gear 63. Finish, black enamel with nickel trimmings and spokes. Weight, 22 lbs. Weight, fitted with three-pound tires, 21½ lbs.

Options. Gear 58, 67, 70½ or 74. Hartford or Dunlop tires. Rubber pedals. 6 inch cranks.

TRIBUNE, MODEL 25

Price, $100.00.

Model 24

This beautiful wheel, as shown in accompanying illustration, is intended for the use of ladies only, and is similar to our Model G of last season, except that the tubing is of larger diameter, and that it embodies all the improvements in detail of '96. Unless otherwise ordered, all wheels of this model will be sent out equipped with brakes and mud guards. The handle bars are adjustable for position, and when brake parts are removed may be used with either upward or downward curve, as desired. Brakes are fitted for upward curve only.

Regular Outfit. 20½ inch drop frame of latest pattern, made of best quality of weldless-steel tubing, joined with steel forgings throughout, no castings used. Wheels 28 inches front and rear. Cold swaged piano wire tangent spokes, 28 to front and 32 to rear wheel. Wheel base 43½ inches. Superior quality wood rims. M. & W. three pound pneumatic tires. Wooden mud and chain guards. Detachable eight-tooth sprocket. Tribune extra fine tool steel ball bearings, drawn to color. Forged steel 18 tooth detachable sprocket and Tribune-Humber pattern chain, ¼ inch with hardened links and rivets. One piece weldless steel tube double adjustable handle bars and brake. Corkaline handles with rubber tips. Adjustable hollow steel seat post. Detachable round toughened cranks, new pattern. 6 inch throw. Narrow tread. Tribune special Ladies' dust-proof ball pedals, new pattern, with tool steel bearings. Sager L2 saddle and tool bag. Monkey wrench. Oil can. Air pump and spanners. Gear 63. Finish, black enamel with nickel trimmings and spokes. Weight, complete with detachable brake and guards, 23½ lbs.

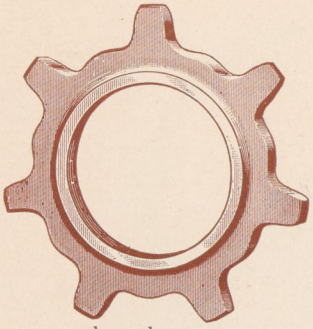
Options. Gear 56, 60, 68 or 72. Hartford or Dunlop tires.

PAGE(S)
MISSING

TRIBUNE RACER

Price, $100.00

the Cycloidal Sprocket



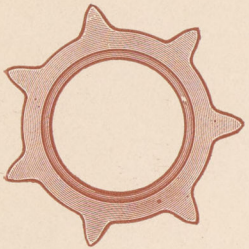
This cut illustrates, as clearly as can be done by engraving, the shape of the teeth which form our Cycloidal Sprockets. It would be impossible, however, to show the advantages of this sprocket on paper, nearly as clearly as they can be demonstrated by examining its actual working in connection with a chain. The secret is entirely in the peculiar curves given to the teeth, and the perfection with which they are cut. It is simply the adaptation of a well-known mechanical principle to a portion of a bicycle, which, in the course of improvement, has been somewhat behind. Any good mechanic knows that a gear wheel with teeth wrongly shaped, will not drive machinery properly; and that the greatest care and most scientific researches have been expended in perfecting the form of gear-wheel teeth; also that the slightest variation from the correct form will cause wear and friction. This being the case, does it not stand to reason that the same care should be used in forming a tooth that is going to operate with a chain, particularly when it will be subjected to a greater strain than would be required of a similar gear under almost any other circumstances? It is, nevertheless, a fact, that on nine-tenths of the bicycles made to-day, the teeth on the rear sprockets are made without correct mechanical shape; in fact, are mere projections to keep the chain from slipping around the sprocket without turning the wheel. Some are made in the shape of a V, and are so pointed that they form a regular inclined plane, on which the chain blocks climb whenever any power is applied.

The illustrations, No. 1 and No. 2, on page 28 are a fac-simile of the rear sprockets used at the present time on two of the most widely known bicycles made in this country. Even a novice can see the disadvantages of such a tooth, particularly that shown in cut No. 1. These are fair samples of the rear sprockets

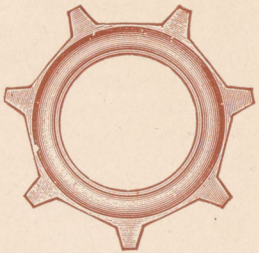
in general use; many are even worse. The moment the chain begins to climb the teeth, even in the least degree, the pitch line of the chain is removed outwardly from the pitch line of the sprocket, and an interference between the entering teeth and the chain-blocks is the result. This cuts the blocks, wears off the ends of the teeth, making friction and causing the bicycle to run hard. Every rider has felt, more or less, this grinding sensation, as though he had a small coffee mill in his rear wheel or crank-shaft, and has doubtless condemned his bearings, which were not in the least to blame, or has thought that the bending of the lower braces in his rear frame was the result of weakness in the tubing, when, in reality, it was the ill-shaped sprocket-wheel teeth which had caused his chain to climb the teeth and buckle his frame. The importance of the correctness of the driving tooth has been much more marked since the introduction of the seven-tooth sprocket. On the sprocket with eight or nine teeth the much-abused chain did its duty in a fairly satisfactory manner, although both chain and sprocket wore out much sooner than they ought; but with the seven-tooth sprocket, the strain on each tooth was vastly increased, not only by its smaller diameter and the necessarily greater strain to drive the wheel, but also from the few teeth that engage with the chain at any one time.

ASSEMBLING ROOM.

The object of the Cycloidal Sprocket is to remove this useless friction and cause the chain to drive as freely as the running of ball bearings. There is no necessity for friction in the running of a chain; all that is necessary to prevent it are four conditions: 1st. That the tooth shall be curved properly to enter the chain without contact. 2d. That the chain shall pull exactly at a right angle, with its bearing surface against the tooth. 3d. That the chain block shall not shift or change its position while passing around the sprocket. 4th. That the tooth shall leave the chain without the least resistance. In order to establish these conditions, we have found, after much consideration and practice, that it is necessary to form the teeth with what is known as a cycloidal curve,



Cut No. 1



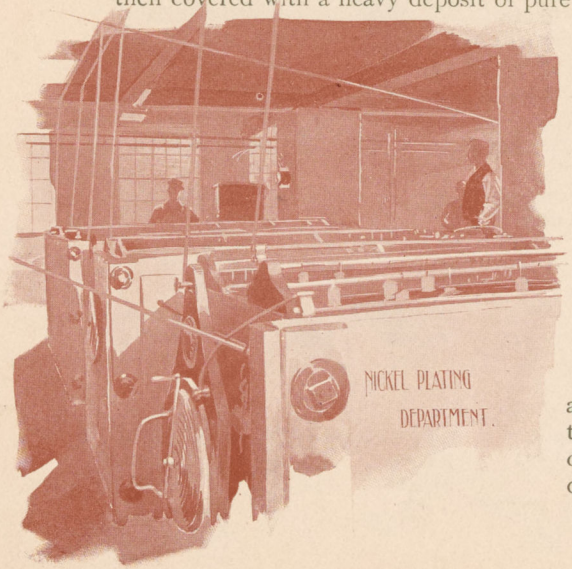
Cut No. 2.

which, in mechanics, is the curve made by fixed point, say on the periphery of a circle, when rolled along a plane surface. The teeth thus shaped fulfill the necessary conditions perfectly, and a free-acting chain and sprocket is the result.

The advantage of the Cycloidal Tooth is most apparent when the rider is climbing a hill or forcing his wheel rapidly on an up-grade or against the wind; this is where the ordinary tooth grinds and makes the rider work at least 15 per cent. harder than there is any necessity. There is no additional friction with the Cycloidal Sprocket, no matter how great the power applied—the chain simply pulls direct and squarely on the face of the teeth, and the power is freely imparted to the wheel. This principle may be very nicely illustrated by taking a detached Cycloidal Sprocket, and, holding it in the left hand with one tooth directly vertical, place the end link of a chain on this tooth and pull the chain out horizontally, holding the sprocket firm. No amount of power will cause the link to rise on the tooth or slip over it. Then take a sprocket with teeth like Nos. 1 and 2 and test it in a similar manner, and you will find that the chain will climb the tooth and slip off before you can draw the slack out of the chain, even though it be but a few inches long. This will plainly show how the chain acts when under a severe strain. Is it, then, to be wondered at, that so many bicycles run hard and that chains cut and wear? The Tribune Bicycles have earned a reputation for their smooth and easy running. This is largely due to this one important feature, which is well worth the consideration of those who wish to make fast time, or who like to know that they are getting the best result for their efforts.

NICKEL PLATING

The . . . . . Nickel Plating On the Tribune Bicycles is of the most superior quality and elegant finish. We make a special point that the greatest care shall be used in this important feature, and that no small parts shall be slighted. Every piece is finely polished, well coated with copper, then covered with a heavy deposit of pure nickel, and carefully buffed.



ENAMEL

The Quality . and Finish . . Of the enamel used on a bicycle has much to do with the appearance of the entire machine. Good mechanical work must be backed by a fine and durable finish. To obtain this, we use not only the best quality of enamel, but polish our work, carefully apply and bake four successive coats, and, finally, polish the whole until a proper lustre is secured. Our standard finish in enamel is black, which we consider neater and more durable than any color. As there is, however, some demand for colors, we have made preparations to finish frames to order in either Royal Blue or Maroon without additional cost. For any color other than these, an extra charge of $3.00 net additional will be made for each machine so ordered. An extra charge of $1.00 will be made for lettering frames with name or initials.

GUARANTEE

We Warrant. All our TRIBUNE BICYCLES to be free from imperfections in material or manufacture, and agree to make good at our factory, at any time within a year, any defects in them not caused by misuse or neglect or accident. In making claims, all defective parts must be sent to us for examination before claim will be allowed. In all such cases, the serial number of machine must be given. Freight and express charges will be at the expense of the purchaser. We assume no responsibility in the matter of pneumatic tires, and in case of defect they must be sent direct to the tire manufacturer.

Gear Table. As it is often desirable to be able to change the gear of a bicycle, we give the following brief table showing the necessary sprockets to use to obtain any standard gear.

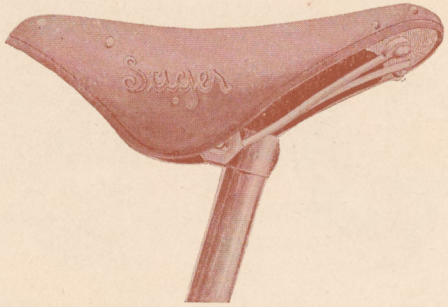
FOR 28-INCH WHEELS.

$59\frac{1}{2}$ gear	8 and 17.	68 gear	7 and 17.	72 gear	7 and 18.
63 gear	8 and 18.	70 gear	8 and 20.	76 gear	7 and 19.
$66\frac{1}{2}$ gear	8 and 19.			80 gear	7 and 20.

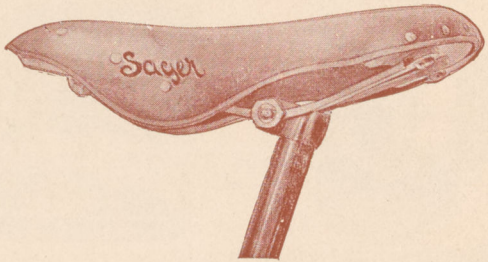
FOR 26-INCH WHEELS.

$55\frac{1}{4}$ gear	8 and 17.	$63\frac{1}{7}$ gear	7 and 17.	$66\frac{6}{7}$ gear	7 and 18.
$58\frac{1}{2}$ gear	8 and 18.	65 gear	8 and 20.	$70\frac{4}{7}$ gear	7 and 19.
$61\frac{3}{4}$ gear	8 and 19.			$74\frac{2}{7}$ gear	7 and 20.

SADDLES

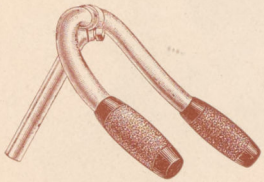


SAGER X2.
Regularly equipped on all men's wheels.



SAGER L2.
Regularly equipped on all ladies' wheels.

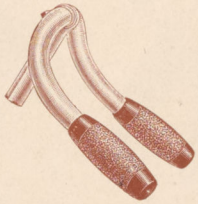
HANDLE BARS



STYLE No 1.

Width, between center of tips, 18 inches.

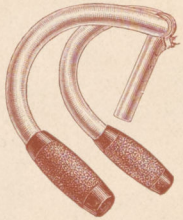
Adjustable and reversible.



STYLE No. 4.

Width, between center of tips, 15 inches.

Adjustable and reversible.

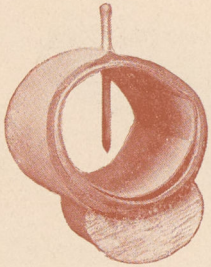


STYLE No. 5.

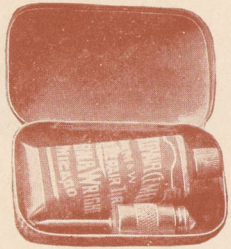
Width, between center of tips, 18 inches.

Adjustable and reversible.

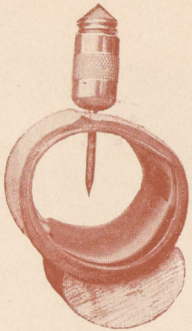
Style No. 3 same as No. 1 but 21 inches between center of tips.



Punctured.



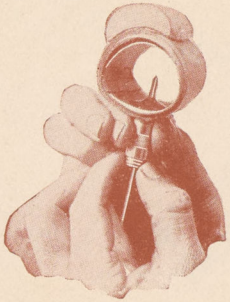
The remedy



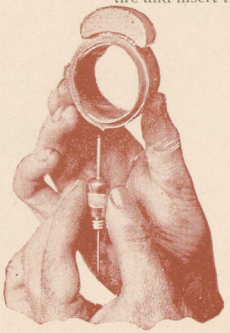
Having found a puncture, inflate the tire and insert the tool.

Unscrew the needle-plug.

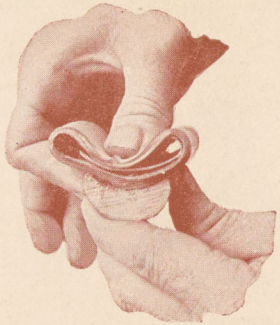
When the air has rushed out, fill the cup with cement.



Screw in the butt end of the needle-plug, meantime turning the wheel so the cement will be forced straight up.

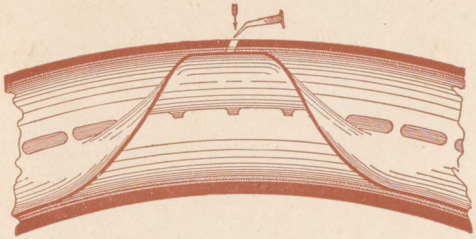


Pull out both nozzle and needle-plug.



Turn the wheel so the puncture will be at the highest point. Spread the cement by pressure. Then half-inflate the tire and press the spot down to the rim again. Then inflate completely.

How to Repair a Morgan & Wright Tire.

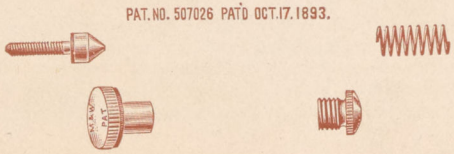


Side view of repaired tire.
Time, two minutes.

MORGAN & WRIGHT TIRES
ARE GOOD TIRES

DETAIL OF SMALL VALVE.

PAT. NO. 507026 PAT'D OCT. 17. 1893.



GUARANTEE FOR 1896.

We shall continue in 1896 our custom of repairing all tires of our manufacture free of charge.

We shall replace defective parts **when, in our judgment,** the defect is from our fault. **In no case** will we replace when worn out in service or injured by accident.

Make your request direct to us, and not through the makers of your wheel.

Express charges on tires must be **prepaid in every instance.** If return by mail is desired, postage at the rate of one cent per ounce must come with request for repairs.

Do not send the wheel with the tire.

See that every package sent has **your address securely fastened to package.**

Before sending to us kindly attempt the repair yourself, so that our efforts may be directed to assist those really in need.

It is a good idea for riders to buy an extra inner tube, complete with valve, and keep same ready for use. The small expense will save delay and insure many a pleasant day's sport.

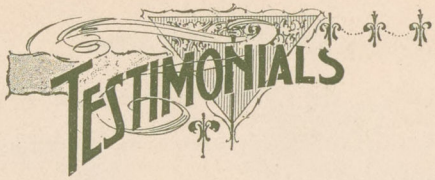
Any pneumatic tire ever made, or to be made, will some time need repairs, and will ultimately wear out in service. Don't forget this when reading advertisements.

All genuine Morgan & Wright tires have the firm name and the patent dates in raised letters on the side. All others are imitations or infringements, and the public **is warned** against them.

The Morgan & Wright tires are made upon honor, of the very best materials obtainable in the world. They have proved during the past four years to be far the most durable tires ever produced, and have to their credit more hard-fought road records and extraordinarily long rides than all other makes put together.

MORGAN & WRIGHT.

JANUARY, 1896.



Tribune Bicycles. . What Those Say . Who Ride Them . With the reputation which the Tribune now has throughout the land for reliability and fine running qualities, it is hardly necessary for us to devote space in this book for testimonials. For the benefit however of those who may not be familiar with our wheels, we print a few from the hundreds of complimentary letters we receive.

Cincinnati, O.

The Black Mfg. Co., Erie, Pa.

Gentlemen :—I received my Model D yesterday, and last night I went to my home on it, (seven miles over rough roads) and I can only say I never was on a machine that ran better than it did. I think your Company may be justly proud of your '95 wheel. There is not a prettier or better made machine on the road. Hoping that I may be able to push it to the front in a good number of races this coming season, I remain Yours very truly,

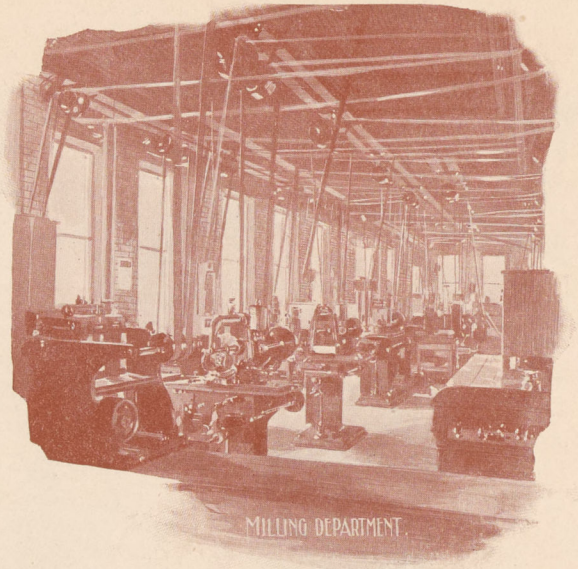
Chas. F. Schuberth.

11 Home St., Cincinnati, O.

Portsmouth, O., July 1st, 1895.

The Black Mfg. Co., Erie, Pa.

Gentlemen :—I have just returned from a trip through Ohio and part of Michigan, on my Model E, 683 miles, taking in the horrible roads through the Ohio oil fields. I was compelled to ride railroad ties and trestles part of the trip; nevertheless I did not have the least trouble with my


MILLING DEPARTMENT.

machine. It did not cost me a cent for repairs. Riders all over the State speak very highly of the Tribune.

Yours truly, Herman Huels.

Garrison, Col., Oct. 4th, 1894.

The Black Mfg. Co., Erie, Pa.

Gentlemen :—I can hardly close up the wheel business of 1894 without complimenting you upon the quality of the wheels you have furnished me for this season's business. I have sold six different makes of wheels this season, including Victors, Columbias, etc. Your wheels have held their

own on the road with any of them, while they far surpass them in simplicity. The lines on which your frame is built are the most tasty I have ever seen.

Respectfully,

C. L. Bernard.

Louisville, Ky., Oct. 17th, 1895.

The Black Mfg. Co., Erie, Pa.

Gentlemen :—Having ridden your road racer, Model D, Tribune, I feel as though there isn't enough words in "Old Webster" to express my opinion as to its qualities, which are undoubtedly the "Bestest What Is." Having tested it over roughest roads with other machines of more weight, I find it more speedy and more durable than any I ever saw, and I have ridden five different kinds.

Consider me a "Tribune" rider as long as they are made. Wishing you success for the ensuing years, I am,

Very respectfully,

Perce G. Young.

510 W. Chestnut St.

North Newry, Me., July 17th, 1895.

The Black Mfg. Co., Erie, Pa.

Gentlemen :—I have just finished a run of 739 miles from Buffalo to North Newry, coming via Albany to Boston, and over some awful roads and hills. We had one coast of four miles, and went like an express train. We made 76 miles one day in a hard rain, and I was surprised that my wheel was not broken a dozen times the way we would slip and fall ; but I am happy to say, my wheel came through like a watch. I didn't touch a nut, and I am delighted with the wheel and the way the bearings keep the sand and dust out.

Yours respectfully,

Geo. J. Peabody.

Buffalo, N. Y.

Rochester, N. Y., June 20th, '95.

Mr. W. H. Rowerdink, Rochester, N. Y.

Dear Sir :—Learning that you have accepted the agency of Tribune Bicycles, the writer takes this occasion to commend the merits of this wheel. A long experience in riding this make of wheel over every kind of roads, impels me to pronounce it one of the finest specimens of ingenuity. The Cycloidal sprocket is a valuable feature on the wheel, and the general excellence of the Tribune contributed materially in aiding the writer to establish a new record from Buffalo to Rochester.

Sincerely yours,

C. J. Iven.

Denver, Col., Dec. 24th, 1894.

The Black Mfg. Co., Erie, Pa.

Gentlemen :—We are in receipt of first shipment of '95 Tribune Bicycles, and compliment you most highly upon the perfect wheel you have to place before the public.

We consider the Tribune second to none of the bicycles represented in Denver, which includes all of the standard high-grade manufacture. In a few days we expect to write, increasing our order threefold.

Yours respectfully,

The Geo. Mayer Hardware Co.

Cincinnati, O., Apr. 13th, 1895.

The Frank T. Miles Co., City.

Gentlemen :—I wish voluntarily to express my extreme satisfaction with the Model D Tribune I purchased from you early this season. For ease of running and hill climbing qualities, it is far ahead of any mount I ever tried, and it has entirely exceeded my expectations.

As you are probably aware, I had the whole wheel taken apart, and tested by one of our expert mechanics ; for accuracy in all details I found it almost perfect. Wishing you unlimited success in their introduction, I remain

Yours very truly, W. S. Mendenhall.

TELEGRAPH CODE

ACORN	Tribune Model 27.
ACME	Tribune Model 26.
ABBEY	Tribune Model 25.
ACUTE	Tribune Model 24.
ABATE	Tribune Model 23.
ABOVE	Tribune Model 22.
*ADONIS	Tribune Racer.
BADGE	M. & W. road tires.
BAG	M. & W. road racing tires.
BAIL	M. & W. track tires.
BANNER	Dunlop road tires.
BAR	Dunlop road racing tires.
BARN	Hartford single tube road tires.
BATH	Hartford single tube road racing tires.
CAMP	Handle bars Style 1.
CANDY	Handle bars Style 3.
CANVAS	Handle bars Style 4.
CAPE	Handle bars Style 5.
DAMP	Pedals, rubber grips.
DASH	Pedals, rat trap.
EARN	Saddle, Sager X2.
EARTH	Saddle, Sager L2.
FAVOR	Gear 56.
FIELD	Gear 60.
FIRM	Gear 64.
FLAG	Gear 68.
FLASH	Gear 72.
FLIT	Gear 76.

CODE FOR WEIGHTS.

WALL	Nineteen pounds.
WAND	Nineteen and one-half pounds.
WARP	Twenty pounds.
WASH	Twenty and one-half pounds.
WATER	Twenty-one pounds.
WAVE	Twenty-one and one-half pounds.
WAX	Twenty-two pounds.
WEAK	Twenty-two and one-half pounds.
WEDGE	Twenty-three pounds.

WEEP	Twenty-three and one-half pounds.
WELL	Twenty-four pounds.
WHACK	Twenty-four and one-half pounds.
WHARF	Twenty-five pounds.
RACK	Ship at once by freight.
RAFT	Ship at once by express.
RAGE	Ship at once by express C. O. D.
RAKE	Send by mail.
RALLY	Send a supply of catalogues with order.
RANCH	Answer by wire.
RAPID	Answer by mail.
RAVEN	Shall we ship?
REACH	How soon can you ship?
REAM	Have you shipped?
RECLINE	Have you received?
RECTOR	We have in stock.
REGAL	Was shipped by freight.
REGRET	Was shipped by express.
RELATE	Have written you to-day.
RELIC	Have sent you by mail.
REPAST	Will ship at once as directed.
RESCUE	Expect to be at your place.
REVEL	Machine has not arrived.
RICE	Order received, if nothing prevents will ship.
RICH	Have not in stock.
RIDGE	Can fill order promptly with.
RIDE	Why don't you ship?
RING	Shipment delayed on account of.
RIGHT	Ordered on the.
RIOT	Will ship as soon as received.
RIPE	Machine equipped as ordered will weigh.
ROAR	Will make machine weigh what you call for.
ROBE	We are not prepared to furnish bicycles with.
ROCK	Shall we enter order for?
ROOM	We do not understand what order you refer to; if you will state date of order or number we will look it up.
ROVER	We expect to ship by freight.
RUBY	We expect to ship by express.
RUMBLE	Too late to make any change.
RUSTIC	See our letter of the.
RUNNER	What will be the additional cost of?

Care and Repair

Keep your tires blown up hard; if you ride with them soft they are liable to chafe on the edge of the rim, and tire manufacturers will not make good a damage of this kind.

You should also see that your tire (if not a detachable) is kept well cemented to the rim, otherwise it may creep and cut off the valve stem, for which you would have only yourself to blame. All tires are carefully cemented to the rim before leaving the factory, but it is hardly to be expected that they will remain so always; therefore, by a little attention, the rider may save himself the expense of a new tire.

Should your tire get cut or punctured, or prove in any way defective, so that you cannot repair it with the outfit furnished, you should remove it from the wheel and send it, prepaid, to the Rubber Company who made it, where, in most cases, it will be repaired free of charge.

To cement a tire to the rim, melt a lump or cake of hard cement in a small cup on the stove, and apply same to both rim and tire with a brush and allow to cool, then moisten both surfaces slightly with a cloth dipped in benzine; put the tire in place and inflate it hard. Let the machine stand, if possible, over night, and it will be ready to use.

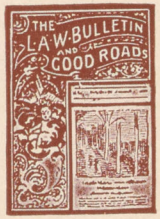
Keep your bicycle clean and your chain well lubricated; a snapping of the chain is a sure sign that it needs lubricating. Oil alone will do but little good on a chain; use good chain lubricant, and use plenty of it.

Oil the bearings of your bicycle at least once a week.

If you break a part send for a duplicate and your machine will be as good as new.

League of American Wheelmen

WE advise our cycling friends of both sexes to join the L. A. W., the great wheelmen's organization of America. It has secured the rights and privileges which wheelmen now enjoy, and many of the good roads and streets over which we ride. It publishes road books, tour books and road maps for the use of its members who also enjoy the benefit of reduced rates at many hotels. It appoints local officers called CONSULS in all towns containing L. A. W. members and selects official repair shops, all of which, together with the official League Hotels, are named in printed lists and books issued by the League for the use of its members. The membership of the League now numbers about forty thousand and is rapidly increasing. From the time of its organization the League has spent $120,000 to advance the cause of road improvement and has printed and circulated over two millions of pamphlets and magazines devoted to this subject. It sends each week to each member a bright, spicy and interesting cycling paper (illustrated) containing official news and announcements, and matter of interest to all wheelmen. Every white cyclist of the age of 18 years or over may become a member. Fees $2.00 for the first year and $1.00 for each subsequent year. Make application to Abbot Bassett, Secretary, 12 Pearl Street, Boston, Mass. You will become a member in about three weeks and your membership ticket will be sent you by Mr. Bassett from his office in Boston.



THE
END

A WHEEL of tasteful design stamps the rider as a person of refinement. The design of our Wheels and the perfect workmanship appeal to the most refined taste. Our fixed policy is to make only Bicycles of an absolutely trustworthy character. All the talk in the world will not convince you so quickly as a trial that the "TRIBUNE" is almost perfection. The Tribune, a gentleman's wheel

LIBRARY OF CONGRESS
0 027 133 228 2